Assessing COVID-19 using Crichton’s Risk Triangle Methodology

by

Dr. Pierre D. Boisrond
*e-Health Scholar / Computer Scientist / Social Scientist / Cybersecurity Researche*r / Preacher

Abstract

COVID-19 continues to dominate the world of healthcare. In the United States, states such as Texas, Florida, and California found it challenging to contain the coronavirus even after reopening their economies. As of late June 2020, there are approximately 100,000 deaths caused by COVID-19 with more than 2 million Americans infected. As organizations starting to reopen, the level of risk of contracting COVID-19 is also increasing. Therefore, the author of this paper recommends that organizations at any level develop a risk strategy that will lead to the development of a risk assessment to help control the spread of the coronavirus in their organizations.

Risk Assessment for COVID-19

Gantz and Philpot (2013) define risk management strategy as procedures and methodologies used by organizations to perform risk assessment and risk monitoring activities. Organizations that do their due diligence to perform the appropriate risk assessment related to COVID-19 will position themselves to better protect their employees against this virus. The process of minimizing the spreading of coronavirus in the office will require the following: coronavirus test kits, masks, gloves, office layout reconfiguration, physical/social distancing, digital contact tracing technologies, and adhere to the guidelines set by federal, state, local, public health officials, and adopt a telecommuting policy by permitting employees to work remotely.

The bigger the organization, the greater the risk will be. Decision-makers must think about the following questions:

1. To respect physical and social distancing, how many people can be accommodated in the office?
2. Are there enough coronavirus test kits available for employee testing?
3. How many people can be in the elevator at a time?
4. How many people can be in the restroom at the same time?
5. The use of Digital Contact Tracing Technologies / Privacy Matters

Understanding the risks associated with COVID-19 requires a risk assessment framework. When it comes to risk assessment theory, one has to consider the following the three variable components of risks such as *hazard, vulnerability,* and *exposure* (Crichton, 1999). This theoretical assessment of risk is known as the Crichton's Risk Triangle. COVID-19 can be seen as a hazardous event to the work population; *exposure* can be seen as a measure of the workforce population that is being exposed to COVID-19; and vulnerability from the Latin "vulnerabilis," meaning "wounding," or "vulnerare," meaning to wound, to injure, or to cause harm can be attributed to attitudinal factors that are exposed to a hazardous event such as COVID-19. Attitudinal factors can be pre-existing conditions, race, age, and various other factors that are related to COVID-19.

For example, combining *vulnerability* and *exposure* can be a measurement to find out the number of people that might be infected by the coronavirus. In other words, Risk can be calculated as the *total exposure multiplied by the factors associated with Vulnerability and Hazard*. Therefore, organizational leaders must take into consideration Crichton's Risk Triangle concepts during their decision to bring employees back to the office; they must also do their due diligence to ensure that their reopening plan does not put the health and safety of their employees at risk.

Discussion

Research has shown that the most effective plan against the coronavirus is physical/social distancing, wearing masks, and avoid large gathering at all costs (Gupta et al., 2020; Raifman et al., 2020). However, in Texas, where the number of positive tests of coronavirus is increasing daily after reopening its economy, it appears that many do not follow the guidelines to control the spreading of this novel coronavirus. According to the researchers at Johns Hopkins University, Texas reported 12.6% positive tests for a 7-day moving average with a total of 5,696 individuals tested positive on June 26, 2020; during the same period, 4,739 hospitalization cases have been reported (Johns Hopkins University, 2020). As Texas exceeds the 10% threshold positivity rate, this is an area of great concern for not only the public health officials but for the general public as well. Reopening the Texas economy too soon can be attributed to this increase in COVID-19 positive test as well as not enforcing a mask mandate in the State of Texas. Enforcing a mask mandate and following the preventative measures set by Public Health Official against this virus would have helped decrease the total of positive tests in Texas during this post-reopening coronavirus stage.

In moments of crisis, great leaders do rise to the occasion. However, at the national level, the leader of the United States of America does not follow the guidelines of public health officials against this virus and causes a lot of confusion for the general public. The lack of leadership also trickles down to some states and local governments. As a result of poor leadership, states such as Arizona, Florida, and Texas have become the latest coronavirus epicenters (The Boston Globe, 2020). According to Eric McNulty of the Harvard T.H. Chan School of Public Health, “The most effective leaders are self-aware and emotionally grounded. They ‘drive to the knowns’ to understand the contingencies they face. And they forge unity of effort across the larger enterprise” (HSPU, 2020). The effort to combat COVID-19 in the United States has not been a unified one. It appears that the leaders at the federal, state, and local levels have their different agendas to fight the novel coronavirus. Many public officials are following the lead of the chief executive officer of this country and are not listening to the scientists. Therefore, endangering the lives of many.

Conclusion

The author of this article urges the leaders of every corporation to perform a COVID-19 risk assessment based on Crichton’s Risk triangle presented in the above before requiring any employees to return to the office. And if employees have to get back to the office, they all must be tested first before they can enter the workforce. Those who tested positive, they must be put in quarantine, even be tracked via digital contact tracing technologies; hence employers will have to address employees' privacy matters as well. Contact tracing is not new; it has been part of the public health system for decades. Though many see contact tracing as an intrusion of privacy, the main objective is to combat this virus, which has the capability of spreading widely, by any scientific means necessary. It is a matter of life and death. The general public, politicians. Public health officials and corporate leaders must form a unified front to contain the virus and to adapt to a new normal, which is wearing masks, practicing social distancing, and washing hands regularly.

References

Crichton, D. (1999). The Risk Triangle. In: Ingleton, J., Ed., Natural Disaster Management, Tudor Rose, London, 102-103.

Gantz, S., Philpot, D. (2013). FISMA and the Risk Management Framework. https://doi.org/10.1016/C2010-0-66566-7

Gupta, Sumedha et al. (Apr. 2020). Tracking Public and Private Response to the COVID-19 Epidemic: Evidence from State and Local Government Actions. Working Paper 27027. National Bureau of Economic Research. DOI: 10.3386/w27027

HSPU (2020). The Importance of Meta-Leadership during the COVID-19 Crisis https://www.hsph.harvard.edu/ecpe/meta-leadership-during-covid-19-crisis/

JHU.edu (2020). Rate of Positive Tests in the US and States Over Time https://coronavirus.jhu.edu/testing/individual-states/texas

Raifman, Julia et al. (2020). COVID-19 US State Policy Database. Tech. rep

The Boston Globe (2020). Arizona, Florida, Texas are the latest coronavirus epicenters. https://www.bostonglobe.com/news/nation/2020/06/28/arizona-florida-texas-are-latest-coronavirus-epicenters/beVTZRqUWUq6meRvwctf5M/story.html